

### Mouse FGF-21 ELISA Kit ab212160

**重组** SimpleStep ELISA

**11 References** [10 图像](#)

#### 概述

**产品名称** 小鼠FGF-21 ELISA试剂盒

**检测方法** Colorimetric

**精确度** 批次内

样品	n	Mean	SD	CV%
Serum	5			3%

批次间

样品	n	Mean	SD	CV%
Serum	3			4%

**样品类型** Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

**检测类型** Sandwich (quantitative)

**灵敏度** 1.47 pg/ml

**范围** 9.375 pg/ml - 600 pg/ml

**回收率** 特定样本回收率

样品类型	平均%	范围
Cell culture supernatant	94	91% - 97%
Serum	103	99% - 107%
Hep Plasma	94	88% - 104%
EDTA Plasma	100	92% - 108%
Cit plasma	101	94% - 106%

**检测时间** 1h 30m

**实验步骤** One step assay

**种属反应性****与反应:** Mouse**不与反应:** Cow**产品概述**

Mouse FGF-21 ELISA Kit (ab212160) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of FGF-21 protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse FGF-21 with 1.47 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

**ASSAY SPECIFICITY** This kit recognizes both native and recombinant mouse FGF-21 protein in serum, plasma, and cell culture supernatant samples only.

**INTERFERENCE** Recombinant mouse FGF R3 and mouse FGF R4 were prepared at 50 ng/mL and 1 ng/mL and tested for interference. No interference with was observed.

**SPECIES REACTIVITY** This kit recognizes mouse FGF-21 protein.

Rat serum and plasma samples are not compatible with this kit. Other species reactivity was determined by measuring 100% serum samples of various species, interpolating the protein concentrations from the mouse standard curve, and expressing the interpolated concentrations as a percentage of the protein concentration in mouse serum assayed at the same dilution.

Reactivity < 3% was determined for the following species: Human and cow.

**说明**

FGF-21 is a secreted protein, a member of a large FGF gene family. FGF-21 stimulates glucose uptake in differentiated adipocytes via the induction of glucose transporter SLC2A1/GLUT1 expression but not via SLC2A4/GLUT4 expression. FGF-21 activity probably requires the presence of KLB.

**平台**

Pre-coated microplate (12 x 8 well strips)

**性能****存放说明**

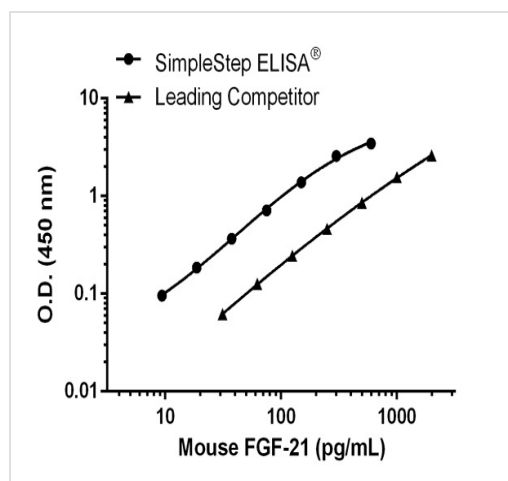
Store at +4°C. Please refer to protocols.

组件	1 x 96 tests	1 x 96 tests
10X Mouse FGF-21 Capture Antibody	1 x 600µl	1 x 600µl

组件	1 x 96 tests	1 x 96 tests
10X Mouse FGF-21 Detector Antibody	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml
Antibody Diluent CPR2	1 x 6ml	1 x 6ml
Mouse FGF-21 Lyophilized Recombinant Protein	2 vials	2 vials
Plate Seals	1 unit	1 unit
Sample Diluent NS (ab193972)	1 x 50ml	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 unit
Stop Solution	1 x 12ml	1 x 12ml
TMB Development Solution	1 x 12ml	1 x 12ml

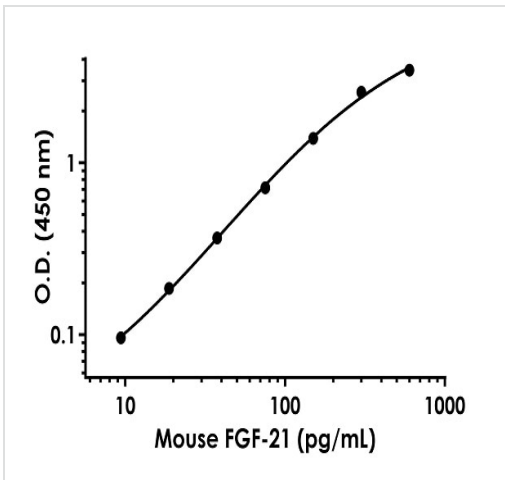
<b>功能</b>	Stimulates glucose uptake in differentiated adipocytes via the induction of glucose transporter SLC2A1/GLUT1 expression (but not SLC2A4/GLUT4 expression). Activity requires the presence of KLB.
<b>序列相似性</b>	Belongs to the heparin-binding growth factors family.
<b>细胞定位</b>	Secreted.

## 图片



Mouse FGF-21 standard curve comparison data.

Standard curve comparison between mouse FGF-21 SimpleStep ELISA<sup>®</sup> kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows a 8-fold increase in sensitivity.



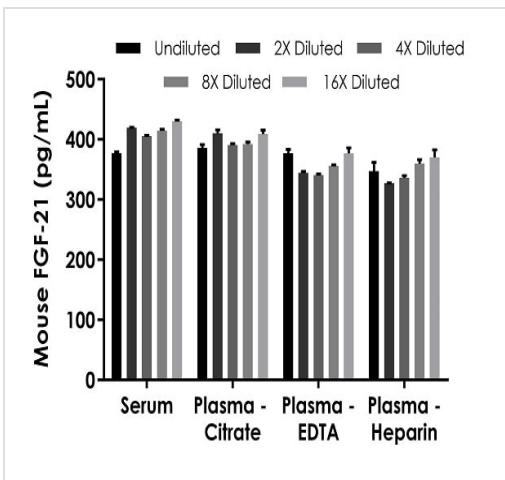
Example of mouse FGF-21 standard curve.

Background-subtracted data values (mean +/- SD) are graphed.

Standard Curve Measurements			
Concentration (pg/ml)	O.D 450 nm		Mean O.D
	1	2	
0	0.054	0.057	0.055
9.375	0.152	0.151	0.151
18.75	0.242	0.240	0.241
37.5	0.422	0.421	0.421
75	0.775	0.765	0.770
150	1.448	1.434	1.441
300	2.579	2.686	2.632
600	3.518	3.520	3.519

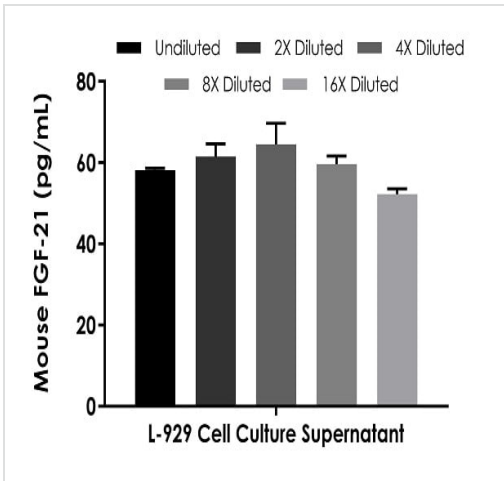
Standard curve

Example of mouse FGF-21 standard curve in Sample Diluent NS. The FGF-21 standard curve was prepared as described. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



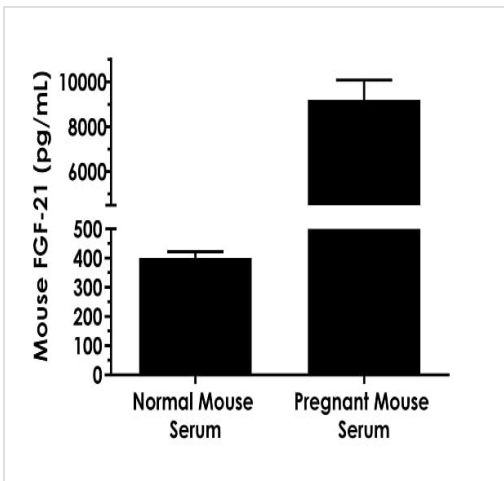
Interpolated concentrations of native FGF-21 in mouse serum and plasma samples.

The concentrations of FGF-21 were measured in duplicates, interpolated from the FGF-21 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 100%, plasma (citrate) 100%, plasma (EDTA) 100%, and plasma (heparin) 50%. The interpolated dilution factor (to neat sample) corrected values are plotted (mean +/- SD, n=2). The mean FGF-21 concentration was determined to be 409 pg/mL in neat serum, 397 pg/mL in neat plasma (citrate), 358 pg/mL in neat plasma (EDTA), and 348 pg/mL in neat plasma (heparin).



Interpolated concentrations of native FGF-21 in untreated L-929 cell culture supernatant samples.

The concentrations of FGF-21 were measured in duplicates, interpolated from the FGF-21 standard curves and corrected for sample dilution. Undiluted samples are as follows: L-929 cell culture supernatant 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean FGF-21 concentration was determined to be 59 pg/mL in neat L-929 cell culture supernatant.



Interpolated concentrations of FGF-21 in normal female CD-1 mouse serum and pregnant female CD-1 mouse serum at day 18 of gestation.

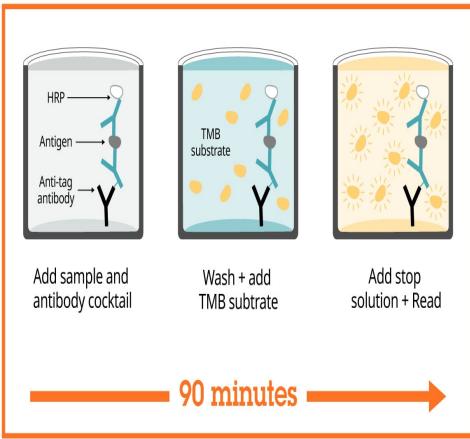
The concentrations of FGF-21 were measured in three different dilutions in duplicate and interpolated from the FGF-21 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted in pg FGF-21 per mL of neat serum (mean +/- SD, n=3). FGF-21 concentration was determined to be 401 pg/mg in normal mouse serum, and 9,193 pg/mL in pregnant mouse serum.

Dilution Factor	Interpolated value	100% Mouse Serum	100% Mouse Plasma (Citrate)	100% Mouse Plasma (EDTA)	50% Mouse Plasma (Heparin)	100% L-929 Untreated (SN)
Undiluted	pg/mL	377.5	385.8	376.9	173.7	58.19
	% Expected value	100	100	100	100	100
2	pg/mL	209.7	205.2	172.2	81.83	30.77
	% Expected value	111	106	91	94	106
4	pg/mL	101.5	97.61	85.12	41.98	16.12
	% Expected value	108	101	90	97	111
8	pg/mL	51.79	49.03	44.52	22.47	7.451
	% Expected value	110	102	94	104	102
16	pg/mL	26.89	25.57	23.55	11.57	3.264
	% Expected value	114	106	100	107	90

Linearity of dilution.

Linearity of dilution is determined based on interpolated values from the standard curve. Linearity of dilution defines a sample concentration interval in which interpolated target concentrations are directly proportional to sample dilution.

Native FGF-21 was measured in the following biological samples in a 2-fold dilution series. Sample dilutions are made in Sample Diluent NS.



Sandwich ELISA - Mouse FGF-21 ELISA Kit  
(ab212160)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Powered by  
recombinant antibodies

- Research with confidence**  
Consistent and reproducible results
- Long-term and scalable supply**  
Recombinant technology
- Success from the first experiment**  
Confirmed specificity
- Ethical standards compliant**  
Animal-free production

Sandwich ELISA - Mouse FGF-21 ELISA Kit  
(ab212160)

To learn more about the advantages of recombinant antibodies see [here](#).

Get more done with  
SimpleStep ELISA

- Easy to use**  
Single-wash 90-minute protocol
- Flexible**  
Matched antibody pairs available
- Precision antibodies**  
High sensitivity, specificity and reproducibility
- Scalable**  
Now in 10-pack and 384-well formats

Sandwich ELISA - Mouse FGF-21 ELISA Kit  
(ab212160)

To learn more about the advantages of SimpleStep ELISA<sup>®</sup> kits see [here](#).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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